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John G. Sotos

APN-001

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7590
Kenneth M. Kaslow
c/o Apneos Corporation
#41
2033 Ralston Ave.
Belmont, CA 94002

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EXAMINER

MALLARI, PATRICIA C

ART UNIT

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3735

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/721,115	Applicant(s) SOTOS ET AL.	
	Examiner PATRICIA C. MALLARI	Art Unit 3735	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32,36,55,56,58,59 and 74-119 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32,36,55,56,58,59 and 74-119 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a non-final Office action. The allowability of claim 54, which has been incorporated into claim 32, has regrettably been withdrawn. See the rejection below for details.

Claim Objections

Claims 46, 55, 79, 93-95, 104-107, 118, and 119 are objected to because of the following informalities:

On line 2 of claim 46, "to the patient" should be replaced with "to the suprasternal notch".

On each of lines 2 and 3 of claim 55, "the body" should be replaced with "the suprasternal notch".

On line 2 of claim 79, "acceleration" should be replaced with "position" since neither claim 32 nor claim 79 have sufficient antecedent basis for "the acceleration sensor".

On each of line 1 of claim 93, line 1 of claim 94, line 1 of claim 95, line 1 of claim 104, line 1 of claim 105, line 1 of claim 106, and line 1 of claim 107, "claim 91" should be replaced with "claim 92", since claim 92 has sufficient antecedent basis for "the plane" and claim 91 does not.

On line 6 of claim 118, "acceleration sensor" should be replaced with "position sensor" since there is no antecedent basis in claim 118 or claim 32 for "the acceleration sensor".

On line 5 of claim 119, "acceleration" should be replaced with "position" since there is no antecedent basis in claim 32 or 119 for "the acceleration sensor".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 80, 87, 91-98, 119, and 104-112 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 80 recites, "the accelerometer detects acceleration in three axes". The specification fails to describe an accelerometer detecting acceleration in three axes.

Claim 87 recites "the first housing contains the oxygen sensor". However, the specification fails to disclose any relationship between a housing and an oxygen sensor.

Claim 89 recites "the step of coupling a position sensor to the patient further comprises coupling to the suprasternal notch a gravity sensing device . . ." Claim 91, which depends from claim 89, further recites, "the step of coupling a position sensor to the patient further comprises coupling a first gravity sensing device . . . and a second gravity sensing device". The specification lacks any description of three gravity sensing

devices being coupled to the patient, as claimed in claim 91. For the purpose of this examination only, the examiner is assuming that only two gravity sensing devices were intended to be claimed and is interpreting claim 89 and all dependent claims accordingly. However, the applicants should correct the language to clearly claim only two gravity sensing devices.

Claim 98 recites, "the first gravity sensing device is an accelerometer". Claim 98 depends from claim 91, which ultimately depends upon claim 89. Claim 89 recites "a gravity sensing device . . . such that the gravity sensing device occupies different states depending upon which end of the axis is closer to the source of gravity". The specification fails to disclose either an accelerometer occupying such different states or using an accelerometer in conjunction with such a gravity sensing device occupying different states, as claimed.

Each of claims 103-107 recites providing information indicative of which position an anatomical structure that defines the suprasternal notch is in. However, the specification fails to provide any support for providing such information. Each of claims 108-112 further defines that anatomical structure as the sternum of the patient. The specification additionally fails to mention the sternum.

Claim 119 recites "coupling the telephone to an upper limb of the patient". The instant specification, as originally filed, provides no description of coupling such a telephone to the upper limb, as claimed.

Claims 108-112 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 108-112 depend from claims 103-107, respectively, and ultimately depend from claims 32, 89, and 91. Claim 32 recites "coupling to the suprasternal notch a position sensor". Claim 89 recites "coupling a position sensor . . . further comprises coupling to the suprasternal notch a gravity sensing device". Claim 91 recites "coupling a position sensor further comprises coupling: a first gravity sensing device. . . and a second gravity sensing device". Each of claims 103-107 recites "the gravity sensing devices provide information indicative of which" position "an anatomical structure that defines the suprasternal notch is in". Each of claims 108-112 recites that the "anatomical structure is the sternum of the patient".

The applicants have failed to describe or otherwise explain how to determine the position of the sternum of the patient based on information from a gravity sensing device or position sensor placed on the suprasternal notch of the patient or how such information would be indicative of the position of the sternum of the patient. Without such a disclosure it would be impossible for one of ordinary skill in the art to make/use/perform the claimed invention without undue experimentation, since such a determination would not be within the purview of one of ordinary skill in the art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 32, 36, 55, 59, 83-85, 89-97, 99, 100, 103-107, and 113-118 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication No. 2001/0007923 to Yamamoto et al. in view of US Patent Application Publication No. 2002/0165462 to Westbrook et al. and "Effects of breathing pathways on tracheal sound spectral features" by Kraman et al. Yamamoto teaches coupling a vibration sensor 3 to the neck of a patient, wherein the vibration sensor is for collecting tracheal vibration from the patient (see entire document, especially fig. 1; paragraph 43 of Yamamoto. A position sensor 7 is also coupled to the patient's body, wherein the position sensor changes state depending upon its orientation with respect to gravity, such that the position sensor provides information indicative of the orientation of the patient with respect to gravity (see entire document, especially figs. 1, 4, and 6a-c; paragraphs 57-60 of Yamamoto). Yamamoto lacks coupling the sensors to the suprasternal notch.

However, Westbrook discloses a device comprising a single unit housing a sound/vibration sensor and a position sensor (see entire document, especially fig. 2; paragraphs 68-71 of Westbrook). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the sensors of Yamamoto within a single housing unit, as shown in Westbrook, in order to reduce the wire leads

required and to further simplify application of the system to the patient (see entire document, especially paragraph 32 of Westbrook). Yamamoto lacks coupling the sensors to the suprasternal notch.

Kraman discloses measuring tracheal sounds using a sensor placed at the suprasternal notch (see entire document, especially the abstract of Kraman). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to place the unit of Yamamoto, as modified, at the suprasternal notch of the patient, since Yamamoto, as modified, teaches obtaining tracheal sounds, and Kraman discloses placement at the suprasternal notch as appropriate placement for obtaining tracheal sounds.

Regarding claim 36, the step of coupling the vibration sensor comprises coupling a microphone to the patient (see entire documents, especially paragraph 43 of Yamamoto).

Regarding claim 55, the coupling of the vibration sensor and coupling of the position sensor to the body are approximately simultaneous, since they are housed in the same unit, and the coupling of the housing to the body.

Regarding claim 59, an indicator is provided coupled to the position sensor, the indicator indicating a preferred orientation of the position sensor with respect to the body, wherein the indicator is the layout of the position sensors 71a and 71b with respect to each other and with respect to the detection circuit 72 (see entire document, especially fig. 7a of Yamamoto). The position sensor is oriented with respect to the patient's body as indicated by the indicator.

Regarding claim 83-85, data representing tracheal vibration information and information indicative of the orientation of the suprasternal notch are obtained over time and recorded (see entire documents, especially paragraph 94 of Yamamoto).

With further regard to claim 84, the step of recording data further comprises recording data from both the vibration sensor and position sensor that are obtained concurrently (see entire documents, especially paragraphs 91-94 of Yamamoto).

With further regard to claim 85, the step of recording data further comprises recording data during a period of time associated with diminished consciousness of the patient (see entire documents, especially paragraph 94 of Yamamoto).

Regarding claims 89-93, 103, and 113, the position sensor comprises a gravity sensing device having at least one axis of orientation with respect to gravity such that the gravity sensor device occupies different states depending upon which end of the axis is closer to the source of gravity (see entire document, especially figs. 6a-c, 7a, 9, paragraphs 57-83 of Yamamoto).

With further regard to claims 90-95, 103-107, and 113-117 the gravity sensing device is coupled to the suprasternal notch with the axis of orientation of the gravity sensing device at an angle to the suprasternal notch such that the gravity sensor device provides information indicative of which of two or more positions the suprasternal notch is in, one of which positions is substantially supine and one of which positions is not substantially supine (see entire documents, especially figs. 6a-c, 7a, 9; paragraphs 57-83 of Yamamoto). With regard to claim 113, the suprasternal notch is an axial portion.

Regarding claim 91-95, 103-107, and 114-117, a first and second gravity sensor device are coupled to the patient, wherein the first device has a first axis of orientation with respect to gravity, and the second device has a second axis of orientation with respect to gravity which can be superposed at an angle to the first axis (see entire document, especially fig. 7a of Yamamoto).

Regarding claims 92, 103, 104, and 114, the step of coupling a position sensor to the patient further comprises coupling the gravity sensing devices to the suprasternal notch in the configuration shown in figure 7a of Yamamoto, wherein that configuration shows the substrate 73 occupying a plane containing the superposition of the two axes of orientation of the first and second gravity sensing devices at an angle to the suprasternal notch such that the states of the gravity sensing devices provide information indicative of which of two or more positions the suprasternal notch is in (see entire documents, especially figs. 6a and 7a; paragraphs 61, 63 of Yamamoto). With further regard to claims 103 and 104, the position of an anatomical structure defining the suprasternal notch, such as the skin of the notch, would necessarily be indicated by the indication of the position of the suprasternal notch itself, wherein one of the positions is substantially supine and one is not substantially supine. With further regard to claim 114, the suprasternal notch is an axial portion.

Regarding claims 93, 105, and 115, the gravity sensing devices are coupled to the suprasternal notch with the angle between the superposition of the two axes and the angle between the plane and the axial portion of the patient's body being such that the states of gravity sensing devices provide information indicative of which of at least two

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positions the suprasternal notch is in, one of which positions is substantially supine and one of which positions is not substantially supine (see entire documents, especially paragraphs 57-83 of Yamamoto).). With further regard to claim 105, the position of an anatomical structure defining the suprasternal notch, such as the skin of the notch, would necessarily be indicated by the indication of the position of the suprasternal notch itself. With further regard to claim 115, the suprasternal notch is an axial portion.

Regarding claims 94, 95, 106, 107, 116, and 117, the gravity sensing devices are coupled to the suprasternal notch with the angle between the axes of the devices and the angle between the plane and the long axis of the patient's body being such that the states of the gravity sensing devices provide information indicative of which of at least three positions the suprasternal notch is in, one of which positions is substantially supine, one of which is substantially prone, one of which is right lateral decubitus, and one of which is left lateral decubitus (see entire documents, especially paragraphs 57-83 of Yamamoto).). With further regard to claims 106 and 107, the position of an anatomical structure defining the suprasternal notch, such as the skin of the notch, would necessarily be indicated by the indication of the position of the suprasternal notch itself. With further regard to claims 116 and 117, the suprasternal notch is an axial portion.

Regarding claim 96, the step of coupling a position sensor to the patient further comprises coupling to the patient a housing containing the vibration sensor and the first and second gravity sensing devices.

Regarding claim 97, the first gravity sensing device comprises a tilt switch having a body containing a cavity, a plurality of contact point pairs within the cavity, and an electrically conductive material that is able to move within the cavity, such that as the orientation of the body with respect to gravity changes, different pairs of contact points are connected, thus providing a signal indicative of the switch's orientation with respect to gravity (see entire documents, especially figs. 6a-c, 7a, 9; paragraphs 57-83 of Yamamoto).

Regarding claims 99 and 100, recording the data comprises a providing a memory 89, converting the tracheal vibration information and information indicative of orientation into digital data, and writing the digital data into the memory (see entire documents, especially fig. 10; paragraphs 89-97 of Yamamoto).

With further regard to claim 100, the memory is non-volatile and the memory is coupled to the patient such that the patient may be in a state of diminished consciousness without being disturbed during the period of diminished consciousness (see entire document, especially figs. 1, 10; paragraph 94 of Yamamoto).

Regarding claim 118, a memory 89 is provided in a housing 8 and the housing is coupled to an upper limb of the patient. The information from the vibration sensor and the information from the position sensor are converted into a first and second set of digital data, respectively. The first and second sets of digital data are written into the memory (see entire documents, especially figs. 1 and 10; paragraphs 87-97 of Yamamoto).

Claims 56, 74, 75, 79, 81, 86-88, and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto in view of Westbrook and Kraman, as applied to claims 32, 36, 55, 59, 83-85, 89-97, 99, 100, 103-107, and 113-118 above, and further in view of Westbrook. Regarding claims 56, 74, 75, 79, 81, 86, 88, and 98 Yamamoto, as modified, teaches providing a vibration transducer as part of the vibration sensor (see entire document, especially paragraph 43 of Yamamoto), but lacks providing an acceleration transducer as part of the position sensor. However, Westbrook teaches a position sensor for sensing the position of the body part to which it is attached, wherein the position sensor comprises at least one accelerometer 36 (see entire document, especially paragraph 71 of Westbrook). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the accelerometer based position sensor of Westbrook in place of the position sensor or as at least one of the gravity sensing devices of Yamamoto, as modified, as it would merely be the substitution of one known position sensor or gravity sensing device for another.

Regarding claim 75, the first housing contains the vibration transducer and acceleration transducer (see entire documents, especially figs. 2 and 5 of Westbrook).

Regarding claims 79 and 88, the step of coupling the position sensor comprises coupling an accelerometer to the patient (see entire documents, especially paragraph 71 of Westbrook).

Regarding claim 81, an adhesive material is provided to couple the first housing to the suprasternal notch (see entire documents, especially paragraph 43 of Yamamoto; paragraph 61 of Westbrook).

Regarding claim 86, an oxygen sensor is provided that provides information indicative of the concentration or amount of oxygen in a portion of the patient's body (see entire document, especially figs. 1 and 10; paragraph 39 of Yamamoto).

Regarding claim 87, the housing contains the oxygen sensor (see entire documents, especially figs. 2 and 5; paragraphs 32, 58 of Westbrook), wherein Westbrook teaches the oximetry component being included in the same housing unit as the vibration and position sensors.

Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto in view of Westbrook and Kraman, as applied to claims 32, 36, 55, 59, 83-85, 89-97, 99, 100, 103-107, and 113-118 above, and further in view of US Patent No. 6,375,623 to Gavriely. Yamamoto, as modified, teaches collecting and storing in a non-volatile memory the position and vibration information during at least a 6-hour time span and converting the information into digital data using an A/D converter (see entire documents, especially fig. 10; paragraphs 94-97 of Yamamoto) but lacks details as to the conversion. However, Gavriely teaches acquiring breath sounds, wherein an A/D converter is used to convert the breath sound signals into digital signals, and wherein the A/D converter has a 12 bit resolution and a sampling rate of 8000 to 15,000 Hz, such a sampling rate being at least approximately 2000 Hz (see entire document, especially col. 6, line 55-col. 7, line 7 of Gavriely). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the sampling rate and resolution of the A/D converter of Gavriely as that of Yamamoto, as modified, since

Yamamoto, as modified, teaches using an A/D converter, and Gavriely describes an appropriate sampling rate and resolution for such a converter.

Claims 76-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto in view of Westbrook and Kraman, as applied to claims 56, 74, 75, 79, 81, 86-88, and 98 above, and further in view of US Patent No. 6,251,076 to Hovland et al. Yamamoto, as modified, lacks an indicator coupled to the first housing indicating a preferred orientation of the first housing with respect to the patient's body. However, the output of the position sensor of Yamamoto is clearly orientation-dependent. Hovland discloses an indicator 245 coupled to a housing 210 to indicate a preferred orientation of the housing with respect to the body (see entire document, especially fig. 14; col. 9, lines 5-20 of Hovland). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine an indicator, such as that of Hovland with the housing of Yamamoto, as modified, since Yamamoto discloses a sensor within the housing with a preferred position since its output clearly depends upon its orientation with respect to the patient, and Hovland describes an indicator on the housing as being useful to indicate such a preferred position.

Regarding claims 77 and 78 the indicator is a graphical representation provided in the housing (see entire document, especially col. 9, lines 5-20 of Hovland).

With further regard to claim 78, when there is no new or unobvious functional relationship between the printed matter and the substrate, no patentable weight is given to the printed matter. Since the printed matter, or the particular design of the indicator, is

not functionally related to the structure of the housing, the claimed invention fails to patentably distinguish over the prior art (see MPEP 2112.01, *In re Ngai*, 70 USPQ2d 1862 (Fed. Cir. 2004), *In re Gulack*, 217 USPQ 410 (Fed. Cir. 1983), and *In re Miller*, 164 USPQ 46 (CCPA 1969)).

Claim 80 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto in view of Westbrook and Kraman, as applied to claims 56, 74, 75, 79, 81, and 86-88 above, and further in view of US Patent No. 5,694,939 to Cowings. Yamamoto is silent as to the details of the accelerometer. However, Cowings teaches an accelerometer that detects acceleration in three axes (see entire document, especially col. 7, lines 36-44 of Cowings). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the accelerometer of Cowings as that of Yamamoto, since Yamamoto teaches using an accelerometer, and Cowings describes an appropriate such accelerometer.

Claim 82 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto in view of Westbrook and Kraman, as applied to claims 32, 36, 55, 59, 83-85, 89-97, 99, 100, 103-107, and 113-118 above, and further in view of US 4,777,963 to McKenna. Yamamoto, as modified, lacks a peel-away covering for the adhesive. However, McKenna discloses a respiratory device comprising adhesive for adhering the device to a patient, wherein the adhesive is covered by a peel-away covering prior to use in order to protect the adhesive (see Entire document, especially col. 2, lines 24-

39 of McKenna). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the peel away covering of McKenna with the method of Yamamoto, as modified, in order to protect the adhesive until the device is ready to be used (see entire document, especially col. 2, lines 24-39 of McKenna).

Claims 101 and 102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto in view of Westbrook and Kraman, as applied to claims 32, 36, 55, 59, 83-85, 89-97, 99, 100, 103-107, and 113-118 above, and further in view of US Patent no. 6,432,061 to Nissilä. Yamamoto, as modified, teaches transmitting the tracheal vibration information from the vibration sensor and the information indicative of the orientation of the suprasternal notch from the position sensor to the recording device 8 before converting the data into digital data, wherein the recording device 8 contains a memory 89 (see entire document, especially figs. 1 and 10; paragraphs 39, -94 of Yamamoto), but the transmission is via a wire 15 rather than wireless. However, Nissilä discloses using either a wired or wireless connection between component in a system for data communication (see entire document, especially figs. 1-3; col. 4, lines 1-32 of Nissilä). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to wireless transmit any information of Yamamoto, as modified, since Nissilä shows wireless and wired transmissions to be functionally equivalent. In the alternatively, it would have been obvious to one of ordinary skill in the art at the time of invention to use a wireless transmission in place of the wired transmission of

Yamamoto, as modified, as it would merely be the substitution of one known transmission means for another.

Regarding claim 102, the recording device may be considered the memory 89 alone, wherein the digital data is transmitted to the recording device 89 between converting the information and writing the digital data into the memory, and wherein such transmission may be wireless.

Claim 119 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto in view of Westbrook and Kraman, as applied to claims 32, 36, 55, 59, 83-85, 89-97, 99, 100, 103-107, and 113-118 above, and further in view of US 2001/0049470 to Mault et al. Yamamoto, as modified, lacks sending the vibration sensor and position sensor information to a telephone, but does disclose sending the information to a limb-mounted processing device. Mault discloses a physiological monitoring system wherein the system transmits data to a computing device, and such computing device may be a cellular phone (see entire document, especially paragraphs 31 and 32 of Mault). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use a cellular phone, as described by Mault, as the computing device of Yamamoto, as modified, since Yamamoto, as modified, discloses using a computing device, and Mault describes a cellular phone as an appropriate such computing device.

Response to Arguments

No arguments were provided.

Allowable Subject Matter

No prior art has been applied to claims 108-112. In light of the rejections under 35 U.S.C. 112, 1st paragraph, no statement of allowability is being given at this time. Upon resolution of these rejections, the prior art will be revisited.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICIA C. MALLARI whose telephone number is (571)272-4729. The examiner can normally be reached on Monday-Friday 10:00 am-6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II can be reached on (571) 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patricia C. Mallari/
Examiner, Art Unit 3735